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KNOWLEDGE

VOL 3 JULY 2009

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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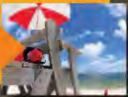

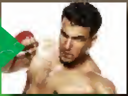

Plus: pull-out posters

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Mission statement: USACRC supports our Army by collecting, storing, analyzing, and disseminating actionable information to assist Leaders, Soldiers, Families, and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please e-mail comments to **safe.knowledge@conus.army.mil**.

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ELIMINATE

July is marked for the celebration of our nation's independence in 1776. Shortly after the signing of the Declaration of Independence, John Adams wrote to his wife:

"I am apt to believe that this day will be celebrated by succeeding generations as the great anniversary festival. It ought to be commemorated as the day of deliverance, by solemn acts of devotion to God Almighty. It ought to be solemnized with pomp and parade, with shows, games, sports, guns, bells, bonfires, and illuminations, from one end of this continent to the other, from this time forward forevermore."

Today, Independence Day and the surrounding holiday weekend period is commonly associated with fireworks, parades, barbecues, carnivals, picnics, concerts, baseball games, political speeches and ceremonies and various other public and private events celebrating the history, government and traditions of the United States. To safely participate in some or all of these festivities, we need to acknowledge the risks associated with each and take the proper precautions by mitigating or eliminating the enemy of risk. Eliminating risk does not mean eliminating fun. On the contrary, by eliminating some or all of the risks associated with the events

> “MAKE sure you have FILLED out a TRiPS assessment and that YOU, as well as your PASSENGERS, are wearing your SEAT BELTS every time YOU get INTO a VEHICLE.”

THE RISK NOT THE FUN

of summer, we can bring great joy and happiness to our celebrations instead of pain and suffering caused by an injury or death.

With the sweltering heat already being felt by many of us, it's hard to believe we're not even halfway through the Army's Safe Summer campaign. Despite the escalation of fuel cost, more of us are hitting the highways and taking well-deserved vacations to visit Families, beaches or theme parks. Driving a privately owned vehicle is still the most dangerous activity you can do this summer. Make sure you have filled out a TRiPS assessment and that you, as well as your passengers, are wearing your seat belts every time you get into a vehicle.

With topics encompassing everything from boating and swimming to hiking and rock climbing, participants in the Safe Summer campaign will find a myriad of tools and useful information to make their summer more enjoyable. Leaders, Soldiers, civilians and Family members will find tools such as subject videos, posters and news releases that are available to download at https://safety.army.mil.

Internet and multimedia tools found on the USACR/Safety Center's Web site and social media sites enhance the composite risk management process, but there is no substitute for good leadership. Statistics have clearly shown that Leaders who use all the tools available to identify and mitigate risks have the biggest and most lasting impact on their units. This act, coupled with the ruthless enforcement of standards and discipline, will help ensure your organization does not experience the needless loss of combat effectiveness. Tough, but caring, engaged leadership may not always be popular, but our Soldiers, civilians and Family members depend on Leaders to remain vigilant in order to drive down unnecessary losses and sustain our "Band of Brothers and Sisters."

Thank you for your continued engagement and efforts to reinforce the principles and practices we know to be successful in mitigating risk and preventing accidental losses.«

Army Safe is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

DOWN DIR

The road flashed by seemingly just inches away from my shoulder as I rounded the sharp corner on my trusty 2005 Yamaha YZF-R6. I envisioned the road ahead of me, eager to get on the long, straight stretch and really open up and let the engine sing. I'd been down this road before and knew there wouldn't be any police. As I exited the corner, I hurriedly worked my way up through the gears. A quick glance at my speedometer showed 130 mph.

AND
TY AT 130

SGT. 1ST CLASS FREDERICK MCMULLEN
U.S. Army Aviation Logistics School, Utility Helicopter Division
Fort Eustis, Va.

I knew there was a slight right-hand bend about three-quarters of the way down the stretch, but I held the throttle all the way open. As I tried to spot the curve ahead, I entered the right-hand bend and felt a strange sensation. I was so focused on the curve that I didn't realize my bike was telling me my rear tire had lost traction and was sliding to the left.

For the next 20 seconds, my life hung in the balance. My rear tire suddenly regained traction, violently snapping the rear of my motorcycle to its original position and throwing me over the handlebars. I've heard of people saying they saw their life flash before their eyes during a near-death experience, but that's not what happened to me. I saw the pavement and knew it would chew up my skin like a grinder. I thought, "Is this really happening to me?"

> "I was **SO FOCUSED** on the **CURVE** I didn't realize my **BIKE** was telling me my **REAR TIRE** had **LOST TRACTION** and was **SLIDING** to the left."

The next few moments were a blur. I seemed to slide forever until I hit the grass beside the road and began tumbling. I heard metal scraping as my bike skidded across the pavement — my handlebars taking the brunt of the damage. My bike then slid onto the grass and began tumbling. I heard the sound of plastic parts being ripped off my motorcycle. It was the sound of my bike dying.

The green grass and blue sky kept changing places as I tumbled. When I stopped, I was on my back, looking at a beautiful sky. Everything was quiet and I was afraid to move. Knowing that adrenaline can sometimes mask injuries, I laid still for a bit, waiting for the pain to start. You don't just fall off your motorcycle at 130 mph and not get seriously injured … right?

But the pain didn't come. I slowly raised my head and looked toward my feet. Everything looked intact. I saw something in my peripheral vision — an ambulance headed toward me. The emergency medical technicians arrived and began checking me out. After 15 minutes of, "Does this hurt?" and not finding anything, I got up and walked away. That might seem impossible, except for the fact I was attending a rider improvement course at the Virginia International Raceway. If I had to crash at high speed, this was the place to do it.

Seeing the growing number of motorcycle fatalities had forced me to rethink not only how I was riding, but where I was riding. Knowing how dangerous public streets can be, I decided to get my bike on a real track. There I could ride as fast as I wanted in relative safety and not have to worry about the police.

I eventually found a company at the raceway that would allow me put my bike on the track. All I had to do was pay to take a rider enhancement course and the track was mine. Initially, I thought of this as an opportunity to showcase

my "incredible" motorcycle-riding skills. Little did I know the professionals teaching this course would train me to ride in ways I could only dream of — and do it in a safe, controlled environment.

I spent the day between classroom time and track practice. On the track, there was an instructor for every four riders. Instead of trying to see how fast I could go, my instructor's goal was to teach me how to safely get the most out of my bike.

After returning home, I began using the skills I learned from the course on the street. I quit riding aggressively, treating every corner as a challenge and every straightaway as a drag strip. Once you've ridden on the track, you understand the dangers of public streets. On the track, I knew what was around the next corner. I knew I didn't have to worry about debris, cars, animals, people backing out of their driveways and other dangerous unknowns. On the street, you're rolling the dice every time you zip through a blind corner.

It was then it hit me how overrating my skills could've set me up for an accident.

HELPING NEW RIDERS

SGT. 1ST CLASS FREDERICK MCMULLEN
U.S. Army Aviation Logistics School, Utility Helicopter Division
Fort Eustis, Va.

Since my training, I have a new challenge when riding. I have a group I regularly ride with and we try to grab new riders before they fall in with the wrong crowd. We teach them that when it comes to riding, it's about leaving your ego at the house and turning the testosterone level down. We point out that the streets are not our personal playground for going out and pushing the limits.

I show Army riders it's not enough to wear the correct personal protective equipment (PPE), attend safety briefs, sign counseling statements promising to ride safely and get their bikes inspected by their Leaders. I tell them they must make a personal commitment to not become a statistic.

We share our experience with new riders to help them ride safer. We pick out a route for a ride that will not overwhelm or scare them. Before we begin, we perform a brief much like a military convoy brief. This is an important step — especially for new riders because they must know we're there to help.

We brief them on the route and the hand signals we'll use. We also brief them on emergency procedures should there be an accident or a rider gets lost. We put new riders toward the back of the group and pair them with a strong rider who can evaluate their strengths and weaknesses. We plan rest stops to discuss any issues that need to be addressed. These stops are very important because they allow the strong rider to evaluate each of us, providing an honest critique. No one is exempt from constructive criticism.

Sometimes you can overwhelm a new rider with too much information, so only one or two new techniques are suggested for them to try. After the ride, we get together to talk about how things went, mimicking an after-action review and reinforcing lessons learned.

Our main goal is to keep these new riders riding with us. If that seems over the top, remember we are trying to keep them from finding a "thrill-seeking" group. These groups don't care about the safety of new riders; all they want to do is show these "newbies" how to "really" ride. They don't care who is weak and might need some help; they just want to get an adrenaline rush. When new riders find themselves in such groups, peer pressure and lack of experience can lead to horrific endings. «

I'd blown off motorcycle safety briefings because I thought I was a good rider. My attitude was, "This brief isn't for me. It's for those guys and gals who can't ride." Little did I realize those briefings were directed at my high-risk riding style. Riding with a professional instructor showed me the difference between the skills I thought I had and the ones I needed to avoid becoming a fatality statistic. That got through to me.

I did become a statistic, but not as a fatality. Although I wrecked my motorcycle at 130 mph, I got up and walked away from my crash. My personal protective equipment (PPE) shows the battle scars, but my body doesn't. My bike was a total loss, but I wasn't.

Was it luck? I think not! I'm an example of how wearing the correct PPE and not racing on public streets can keep you out of the fatality statistics. For guys who want to go fast, I have a simple message — take it off the street and put it on the track!«

Share street smarts while helping your battle buddy!
MMP
MOTORCYCLE MENTORSHIP PROGRAM

Check out the MMP Web site for some examples of active mentoring programs:
https://safety.army.mil/mmp/

TROUBLED WATERS

COMPILED BY THE KNOWLEDGE STAFF

I always considered myself a good swimmer. Growing up in Michigan, I began swimming in Lake Superior at an early age and have swum in pools, lakes and oceans all my life. One fine day on a beach in Hawaii, however, changed my view on my swimming abilities.

While "PCS-ing" from Korea back to the States, my Family and I decided to stay a week in Hawaii for a much-needed vacation. While there, my 15-year-old daughter begged me to take her to a beach to snorkel like we had in Guam, so I planned a trip for us to the northwest side of Oahu, near Haleiwa.

It was early afternoon when we left, so we stopped at a place to grab lunch and then hit the beach. When we arrived, we saw the locals surfing waves between 4 and 6 feet tall. It looked like a lot of fun, but after lunch, I was feeling full and tired. I wasn't sure I would enjoy swimming on a full stomach, but I was going to try and have some fun while at this beautiful beach.

My daughter wanted us to swim to a rock about 40 yards out, so we jumped in the water. Having never been to Hawaii, we did not know the strength of the trade winds in December. As we made our way out, it became

> "**HOW** was I going to **SAVE** her in these **ROUGH SEAS** when I was having **TROUBLE** myself?"

apparent that swimming in the Pacific with these waves was completely different than swimming in the local pool.

I swallowed about three mouthfuls of seawater and felt my lunch becoming heavier and heavier. I was getting nervous and my heart rate dramatically increased, which caused my breathing to accelerate and lose rhythm. For the first time in my life, I was scared in the water and decided to turn around and head back toward the beach.

At the time, I was only about 30 yards from shore; however, as I found out later, most drowning deaths occur just 20 feet from shore. I was sure I could make it and rolled over and started using the backstroke, keeping my head out of the water and trying to slow my pulse to a comfortable level.

As soon as I turned back, I heard my daughter yell, "Dad!" Now I was frightened for her — although she is also a good swimmer. She had pulled ahead of me on our way to the rock and was now only a few feet from it. How was I going to save her in these rough seas when I was having trouble myself?

Fortunately, she was only yelling at me to keep on swimming toward the rock. She didn't realize I was in trouble. I yelled for her to come back to shore with me. In typical teenager style, she complained that she was already to the rock, but she eventually followed me. I was exhausted when we made it back to shore and felt like collapsing on the sand. I was relieved we had made it back, although my daughter was still complaining that I made her come back to shore.

I've never been scared in the water before, but this trip was a good lesson for me. I realized swimming in the ocean is totally different than swimming in a public pool. I also learned that you should swim only when you feel comfortable and not push yourself beyond your limits.

The day after our swimming scare, I took my daughter to a calmer beach. The conditions there were more favorable for swimming, and I ate my lunch after getting out of the water. Overconfidence in my abilities almost cost me my life, but it left me with a valuable lesson. I will never underestimate the ocean again.«

DID YOU KNOW?

The greatest safety precaution to take is to recognize the danger of rip currents and always remember to swim at beaches with lifeguards. The United States Lifesaving Association (USLA) has calculated the chance that a person will drown while attending a beach protected by USLA-affiliated lifeguards at 1 in 18 million.

FYI

Rip currents are powerful, channeled currents of water that flow away from shore. They typically extend from the shoreline, through the surf zone and past the line of breaking waves. Rip currents can occur at any beach with breaking waves, including the Great Lakes. The United States Lifesaving Association (USLA) estimates more than 100 people die each year on U.S. beaches due to rip currents. Rip currents also account for more than 80 percent of rescues performed by beach lifeguards. For more information on how to stay safe and protect your Family in the water, visit the USLA Web site at www.usla.org/.

THE LONGEST

STAFF SGT. JOSEPH F. KEYES
Company B, 2-149th General Support Aviation Battalion
Oklahoma and Texas National Guard

On the night of Sept. 17, 2008, I embarked on the longest flight of my military career. That night, a simple point A to point B trip quickly turned into a flight that brought my crew and me to the very brink where friends were lost and only courage and focus kept us alive.

'Today's the Day'

It was a hot September day in Kuwait and the mission was simple; fly four CH-47D Chinook helicopters from Udari, Kuwait, to Balad, Iraq. We were the last of twelve Chinooks scheduled to make the trip and were eager to get going, but weather had kept us in Kuwait for nearly a week longer than the rest of the company.

The day started like every day the week before; we got up, packed and prepared the aircraft to fly. This day, though, we all had a good feeling about it. The weather looked good and our hopes were up that we would go.

"Today's the day," was heard throughout our tent and we were all smiles and jokes.

When it was announced that the weather was good enough to go, everyone grabbed their stuff and headed out to the flightline. The aircraft were cranked and we began repositioning for takeoff.

We lined up in chalk order. Chalk 1 was Red River 26, Chalk 2 was Red River 45, Chalk 3 was Red River 44 and Chalk 4 was Red River 41. I was in Chalk 2. The engines were roaring and blades were thumping when we got a radio call from Udari tower. "Red River 26 and flight, this is Udari tower … be advised we have updated weather; visibility has just dropped to 2 ¾ miles at the airfield."

My heart sank as I listened to the words, but the next communication gave me hope again. "Flight, this is 26, tower

FLIGHT

has advised that visibility has dropped to 2 ¾ here at the field. All other weather along the route is still good. In chalk order, advise if you are good to proceed."

We talked it over as a crew and agreed we felt good about going — and so did the other crews.

At about 2321 local, we took off. Man, it felt good to finally be leaving.

Zero Horizon

Shortly after takeoff, I was scanning my sector and noticed that it was a dark night and there was very little in the way of cultural features. The horizon was becoming more difficult to make out; the ground was blending with the sky in a greenish haze. At one point, I experienced a brief moment of spatial disorientation, but I was able to regain focus, so I didn't think much of it at the time. This moment of disorientation was a telling sign of what was to come, though.

About 20 minutes into the flight, I was watching Chalk 1 and ensuring we had plenty of room while scanning for other traffic out the right side. Sgt. John Vasquez was on the ramp and keeping an eye on Chalks 3 and 4. The left side was covered by Cpl. Spencer Skipworth. While scanning my sector, I noticed Chalk 3 was fading back from our aircraft about one-eighth of a mile. This was farther than we had briefed, but given environmental challenges, I wasn't overly concerned. As long as I could see them, I felt more space was better than less.

The atmosphere in the aircraft was growing tense. We were losing the horizon and everyone was concentrating on their duties. In the distance, we saw a series of lights. At first, we thought it was a village until Skipworth announced that it was a convoy. I was glad for the lights because this was the first real horizon we had had for some time.

As we approached the convoy, I checked on Chalk 3. They had faded farther from us and were now almost a quarter-mile back. They were still in sight and still did not cause me any concern. I turned my attention back to Chalk 1 as we crossed the convoy. Suddenly, the right side of the aircraft lit up in my goggles, nearly causing them to shut down. I thought one of our flares had gone off, only it was much brighter.

"Chalk 3 is down, Chalk 3 is down," Vasquez screamed over the ICS. My heart sank and I desperately tried to get a fix on their position. The radios came alive with calls from Chalk 4 saying the same thing and Chalk 1 trying to confirm what had happened.

Suddenly, my pilot announced, "I am going spatial, I'm spatial." I felt the aircraft lurch into a turn and go nose down. I immediately came off of my gun, flipped up my goggles and searched the instruments. "You are in a nose down right turn, pull up and turn left," I announced after finding the attitude indicator.

I felt the nose come up, but I felt us go farther into a left turn. "Correction, you are in a left turn. Come right, come right," I yelled. The pilot responded at once and the aircraft leveled off.

Now I was locked on three gauges — attitude indicator, airspeed and altimeter. Chief Warrant Officer 2 Michael McGill, the pilot on the controls, was still disoriented, and we were all in some state of shock. Chalk 3 had crashed and all we could see was the huge trail of flames left from the impact. Chalk 1 climbed up to initiate Fallen Angel procedures and Chalk 4 announced they were going to land and see if they could help Chalk 3. Meanwhile, we were still heading away from the crash site.

It was a constant struggle to help keep the aircraft oriented during this time. We would go into a slight left turn, I would call the turn and corrections until we were level, then we would go nose down, nose up, right turn, left turn, lose airspeed, lose altitude. I was constantly calling corrections, constantly scanning one instrument after the other. My whole world was three instruments.

Finally, McGill decided that we needed to turn around and stay in the vicinity of the other aircraft. After we began heading back, McGill made the decision to climb to 1,000 feet. I called his ascent and had him level the aircraft out of the turn.

Time seemed to creep by until finally we reached 1,000 feet and 1st Lt. Michael Stanski applied Barometric Altitude Hold. The aircraft would hold at 1,000, no more descents. I still checked the altitude to ensure we were holding at 1,000; I didn't want this to be the one time the hold failed us.

At 1,000 feet, McGill seemed to calm a little and the aircraft stabilized a bit. I still announced the attitude and airspeed about every minute or so and my voice was the only sound for a while. I remember thinking over and over, "This isn't happening, this isn't happening," but then the crash site would cross in front of us and I would see the flames.

Chalk 4 had landed near the crash and I could see them just sitting on the ground, blades turning. I wished I was with them; I wanted to be done with this flight.

Sudden chatter on the radios brought me around again. I heard that there were other aircraft en route to the scene, including medevac.

"There are no survivors; please ensure you have recovery assets," Chalk 1 relayed to the medevac bird. The radio call hit me like someone had just punched me in the stomach. They were all dead. Part of me had hoped that Chalk 4 had found someone alive. That hope was smashed after one radio call.

We orbited for what seemed an eternity, the carnage displayed for me on every left turn — a huge burning fire and one lone Chinook sitting off to the side. After more than an hour at the crash site, Chalk 1 called for fuel statuses of the flight. We were all getting dangerously close to bingo fuel. We couldn't stay any longer or we wouldn't make it to the fuel stop. Lead made the call; we were to link up in flight and continue to our planned fuel stop at Talil, Iraq. We made one more left turn, looking out at the fire and the helicopter, and then we were off.

A part of my heart was left there in the desert as we flew away that night. Capt. Robert Vallejo II, Chief Warrant Officer 3 Brady Rudolf, Sgt.

> Spatial **DISORIENTATION** is **NOT** just some **TERM** out of a **TEXTBOOK.**

Daniel "Grumpy" Eshbaugh, Staff Sgt. Luke Mason, Cpl. Michael "Tommy Gun" Thompson, Chief Warrant Officer 2 Corry Edwards and Sgt. Maj. Julio Ordonez were gone. May they rest in peace.

Making Sense of it All

My friends are gone and I tell this story with a heart full of sorrow but also filled with a hope that I can help prevent something like this from happening again. I do think there are lessons to be learned from this tragedy. What could have been done to prevent this? How can we keep it from happening again? I don't have all the answers, but the aircrews involved in this accident have talked and tried to answer these questions to make some sense of it all.

Spatial disorientation is not just some term out of a textbook. It is a very real and potentially deadly phenomenon. Aircrews should talk about spatial disorientation regularly and have a plan on how to deal with it. Enlisted crewmembers should know their helicopter's instruments and be available to help their pilots. My understanding of the attitude indicator, altimeters and airspeed saved my life. Get with your pilots and have them teach you how to read these instruments and where they are located.

Only fly in weather you are briefed to fly in and ensure you are prepared for bad weather and have contingencies well planned and briefed. Use effective crew coordination. Talk about everything within your aircraft and your flight. Would a radio call to Chalk 3 when they broke formation have made a difference? Maybe it would have.

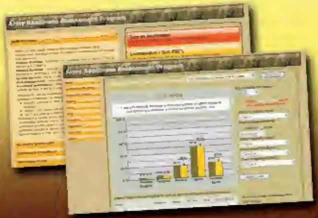
When Red River 44 went down, my crew and I were forced to act with courage and focus despite all that happened. It is because of this courage and focus that we survived. It is my sincere hope that those who read this will learn from this tragedy and use the lessons here to survive your own "longest flight." «

Wouldn't you like to know if your unit is about to experience a mishap?

Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

ARAP is a Web-based initiative that provides battalion-level commanders with data on their formation's readiness posture.



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https://unitready.army.mil

WORTH THE RISK?

JOAN BLACKWELL
Human Factors Task Force
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Imagine you've just received word that someone you love has been in a traffic accident — from all indications, struck by a drunk driver. Time slows, or seems to, forcing you to experience every agonizing moment. You call to alert Family and friends as you make your way to the hospital. Waiting for the ambulance to arrive, you wonder aloud, "How could this happen? Why would a person put themselves and others at risk doing something as dangerous as driving drunk? Who could be so selfish?"

Those questions still hang in the air when the emergency room's (ER) hectic din turns to chaos. Emergency medical technicians crash through the outer doors, pushing the gurney that holds the bloodied and broken body of the person you hugged goodbye only an hour ago. You strain to approach, to reach out for just one touch, but hospital staff members hold you back, allowing the gurney to be wheeled by and into a trauma suite. Transfixed, you stare through the wall of glass until a nurse flings the curtain closed with one sweeping motion of her arm. The metal rings clang along the rail but go silent as the curtain billows and then falls still.

Somewhere behind you the ER desk clerk asks a police officer, "Drunk driver at this hour of the day?" Anger flares in your constricted, worry-filled chest. The questions form again. Who puts themselves and others at risk? Who is that selfish? Before you can voice your fury, the officer replies, "No. The other driver was talking on a cell phone. Blew through the intersection like it wasn't even there."

Your consciousness shifts. Suddenly, you feel you can see the whole room, the whole city, at once. All this turmoil? All this destruction? All this heartbreak? All this was caused by someone driving and talking on a cell phone?

> "**RESEARCH** shows it is the **ACT** of conversing — **SPEAKING**, **LISTENING**, **PLANNING** to **SPEAK** — that takes the **DRIVER'S** mind **OFF THE ROAD**."

Who puts themselves and others at risk doing something as dangerous as driving drunk? Anyone who drives while talking on a cell phone. Research shows it is the act of conversing — speaking, listening, planning to speak — that takes the driver's mind off the road. Based on brainwave measurements, when a person listens to sentences, there is a 37 percent decrease in activity in the parts of the brain that facilitate driving. The demand on brain resources is even greater when the driver speaks, as well as listens.

Unlike talking with passengers, where the task of driving is a shared experience and may even become part of the conversation, a tunneling effect occurs when talking on a cell phone. The driver "zones out," becoming less observant and less available to anticipate and respond to hazards. Whether the research studies were conducted in a driving simulator or on-road in highway traffic, drivers talking on a cell phone missed exits, strayed into adjacent lanes, made lane-changing errors and had a 50 percent reduction in their ability to recognize or remember landmarks

FOUR WAYS TO PROTECT YOURSELF AND OTHERS

• Turn off your phone before you get into your car. From an early age, we've been programmed to answer a ringing phone. Even though you know the dangers, there will be a tremendous temptation to answer the phone or take a quick peek at caller ID.

• If you can't bring yourself to turn off your phone, let all calls go to voicemail and then pull off the road and return them at your earliest convenience. Have your outgoing message state that you are currently driving and will call back soon.

• Refuse to ride with a person who talks on a cell phone while driving. It may initially cause hardship or hurt feelings, but just remember you wouldn't accept a ride from someone who was legally drunk. Research has shown there is no practical difference between driving drunk and driving while talking on a cell phone. If necessary, offer to place or receive a call on the driver's behalf.

• When you receive a call from someone, ask whether they are driving. If the answer is yes, have them hang up and call you back when they reach their destination. Same goes for you. If you call someone who is driving, either call back later or ask the person to call you when they've pulled off the road. They may snicker and call you absurd or accuse you of being impractical. But if that person were to be involved in an accident while on the phone with you, injuring or killing themselves or someone else, it would be you left to deal with the tragedy and to wonder — was the call worth it?

encountered while driving.

Another study led researchers to conclude that cell phone users are actually more likely to have an accident than drunk drivers (especially rear-end collisions) due to the impairment compensation strategies each group employs. When under the influence of alcohol, drivers tend to exhibit an aggressive driving style. They follow closely, requiring them to brake suddenly and with great force.

Drivers talking on a cell phone appear sluggish. Though they attempt to compensate for their divided attention by increasing the following distance between themselves and other vehicles, their reaction times, on average, are more than 130 milliseconds longer than a driver impaired by alcohol.

When asked, a vast majority of people will say using a cell phone while driving impairs a person's ability to drive safely. They might even have been a victim of the "near miss" and will offer one or two stories as proof. However, many of those same people believe they are immune from such impairment. It's always the "other guy" who can't drive and talk at the same time. Research has shown, however, we all are the "other guy."

We're busy people. We have places to go and things to do, so we multitask. But drive time is not downtime. An activity that takes a person's mind off the task of driving is just as problematic as taking one's eyes off the road or hands off the steering wheel.

Do you underestimate the danger created by talking on a cell phone simply because every call doesn't result in a crash? Put yourself back in that tumultuous scene at the ER.

Imagine … there's a doctor walking toward you with an

DRIVING IN-TEX

How many things can people do behind the wheel besides drive? It's not bad enough that some folks yak on the phone, oblivious to what's going on around them. Some aren't satisfied until they're trying to steer, hold a cell phone and key in a message all at one time. Can you do that with two hands? More importantly, can you do that with one brain?

I consider myself a pretty cautious driver, always being mindful of others around me on the road. Staying aware of my surroundings has allowed me to dodge deer, drunk drivers and flying tires. Also, I never want to know what a .08 blood alcohol content feels like because I don't want to be on the side of the road taking a breathalyzer test. So far, I've managed to stay accident-free for the last 12 years.

Not that I haven't pushed my luck. During the last three years, I got caught up with text messaging. I initially hated texting and didn't see any point to it. Keying in a message took twice as long as calling and you had to pay extra for the "luxury" of this headache.

However, as it became commonplace, I grew accustomed to texting and it became a part of my everyday life. My friends and I would communicate via text whether I was at home, work or driving my car. Because I thought it would be more "high speed," I even got a new phone with a QWERTY keyboard, which was a lot easier and faster than using number keys.

After going to work as a safety specialist with the Delaware National Guard, I regained a strong grasp on being safe and promoting safety. During some research, I came across an article that piqued my interest. The article, which was based upon a study conducted in England, stated text messaging while

DID YOU KNOW?

Text messaging while driving has already been banned for all drivers in Alaska, Arkansas, California, Connecticut, Louisiana, Minnesota, New Jersey, Utah, Washington and the District of Columbia. In addition, novice drivers are banned from texting in Delaware, Maine, Maryland, Nebraska, North Carolina, Oregon, Texas, Virginia and West Virginia. Also, school bus drivers are banned from text messaging in North Carolina, Texas and Virginia. (Information provided courtesy of the Insurance Institute for Highway Safety.)

ominous look on her face. You sense your whole world is about to change; that life as you knew it only an hour ago is over. Would it lessen the impact of this moment if you knew the driver who blew through the intersection made a dozen crash-free calls before running the red light and colliding with your loved one?

If the situation was reversed and you were the driver who'd been on the phone, what would you say to the grieving family to convince them the phone call was worth it?«

DID YOU KNOW?

- A person talking on a cell phone displays the same incapacitation as a person with a .08 blood alcohol content level — and it doesn't matter whether they are using a hand-held phone or a hands-free device.
- The risk of having an accident is estimated to be four times higher while talking on a cell phone.
- Over half of U.S. drivers admit to using a cell phone while driving. According the National Highway Traffic Safety Administration, there are 500,000 drivers on the phone at any given time.

T-ICATED

SGT. ROBERT KNAUER
Delaware Army National Guard
Wilmington, Del.

driving is more dangerous than driving under the influence of alcohol.

As I read the article, it really changed my way of thinking. It showed text messaging increased reaction times by 35 percent, compared to 12 percent for drunk drivers and 21 percent for those using marijuana. The article reported text-messaging drivers were 91 percent poorer in their steering skills (staying in their lane) than drivers paying full attention to the road. The article also stated it took an average of 63 seconds for a text message to be composed and sent compared to 22 seconds when sent from a desk. A multitude of disasters can happen in 63 seconds.

That got my attention. While I'd never be foolish enough to drink and drive, I have texted complete conversations while driving.

The numbers were compelling. I thought about the times paying attention to my driving kept me from an accident or a near miss. I immediately stopped using my cell phone while driving, especially for texting. I realized that if I didn't, it wasn't a matter of "if" but "when" I would have an accident.

Looking back on that decision, I'm glad I made it before something devastating happened to me or someone else. I cherish my life; there is no one in this world I'd risk losing it for just to send a text message. Also, I don't want to have on my conscience the death or injury of someone else because of my negligence.

I am concerned, however, we may be trading one hazard (talking on cell phones) for an even greater one (text messaging). With cell phone use banned while driving on post, some Soldiers may resort to text messaging as a more "stealthy" way to communicate — something that might be harder for military police to spot.

At a time when privately owned vehicle accidents are the leading cause of accidental death, this could increase the risks even further. And this isn't just a concern for lower enlisted Soldiers. Many of our Leaders carry and communicate with BlackBerrys.

If you wouldn't drink and drive, why make an even worse decision to text and drive? Consider the risks, which far outweigh the benefits. If you have something important to say, park on the side of the road and call. After all, which would you rather give your full concentration to — a conversation or a collision?«

HAPPY TRA

Every year, hundreds of thousands of hikers head for the great outdoors. Those who return with stories that last a lifetime did serious homework long before they reached the trailhead. They made self-education — from simple physical conditioning to the study of potential dangers — a priority.

Before hiking, it's important to do some warm-up exercises. Stretching gradually increases your heart rate, temperature and circulation to the muscles. Visitors with health issues should also plan their activities according to their abilities, said Vivian Sartori, a park ranger at Organ Pipe Cactus National Monument in Arizona.

Once on the trail, you should start out slowly, wear a hat and sunglasses and bring along plenty of water. The National Park Service (NPS) also recommends bringing extra clothing, such as gloves, a fleece and an extra jacket. Remember, you can get sunburned even in subfreezing temperatures because of the sun's reflection off the snow. It's best to bring, and use, sunscreen.

As your hike proceeds, take a rest from time to time, especially if you are experiencing headaches or shortness of breath. The staff at Rocky Mountain National Park recommends people feeling symptoms of fatigue drink plenty of fluids, avoid alcohol, don't skip meals and get plenty of rest.

"Consume at least 1 gallon of water, per person, a day," Sartori said. "You will become dehydrated before you realize it. Always carry extra water when you're hiking."

Also, be sure to bring carbohydrate energy bars, granola, candy or fruit, all of which provide an instant burst of energy for long hikes. Energy drinks are not recommended because they contain high levels of sugar, but sports drinks such as Gatorade can be useful for boosting electrolytes in the body after long hikes.

A lot of adventurous hikers love to explore the parks on their own and can end up in trouble if they don't tell someone where they are going. There are a lot of remote areas in national parks, and it is strongly suggested you hike with a partner.

"Nowadays, a lot of people are taking GPS units on their hikes, but those devices are not always reliable," said Michael Loder, a park ranger at Crater Lake National Park in Oregon. "A GPS requires a satellite to get a signal and sometimes you can't get a signal if you're in a canyon or on the side of a mountain."

If you do hike alone, be

FYI

The National Park Service (NPS) plays a pivotal role in helping hikers enjoy their outings. The NPS manages more than 84 million acres of land in the United States, averages 275 million visitors every year and provides time-tested advice to help keep visitors safe. For more information, visit the NPS Web site at www.nps.gov/.

AILS

BRIAN TSAI
U.S. Department of the Interior
Washington, D.C.

When preparing for a hiking or camping trip, make sure your pack contains the following essential items:

- Map
- Compass
- Flashlight/head lamp
- Food
- Extra clothes
- Water
- Sunglasses
- Sunscreen
- First aid kit
- Pocket knife
- Waterproof matches/lighter
- Insect repellent

sure you are competent with a map and compass and able to locate important features such as highways, visitor centers, campgrounds and trails.

"If you become lost, it's important to stay calm and stay put," Loder said. "It's a lot easier for a search party to find a stationary target than a moving target."

If children are brought on a hiking or camping trip, make sure to check the recommended trails for Family hikes. Ranger-led walks are free and can increase your confidence while you learn more about the park. It's advisable for children to wear a whistle so they can signal where they are should they become lost.

"Keep day hikes to a reasonable distance, three to five miles, for example, and do not overdo them," said David Elkowitz, spokesman at Big Bend National Park in Texas. "We have many hikes like this."

During your hike, you may encounter wildlife, and it's good to know what safety precautions to take. Depending on where you are, most park rangers recommend making a lot of noise while you are hiking. This warns animals of human presence and, in most cases, scares them away before you cross paths. In the rare occasion that a hiker should come in close contact with a bear, it is best not to run. Just slowly back away.

"Bears have poor eyesight compared to other animals, so even if you are 50 yards away, the bear may still try to come closer to see what you are," said Alex Lindeman, a park ranger at Denali National Park and Preserve in Alaska. "You want to stop moving and hold your ground. Denali is fortunate that in its 91-year history, no one has ever been killed by a bear."

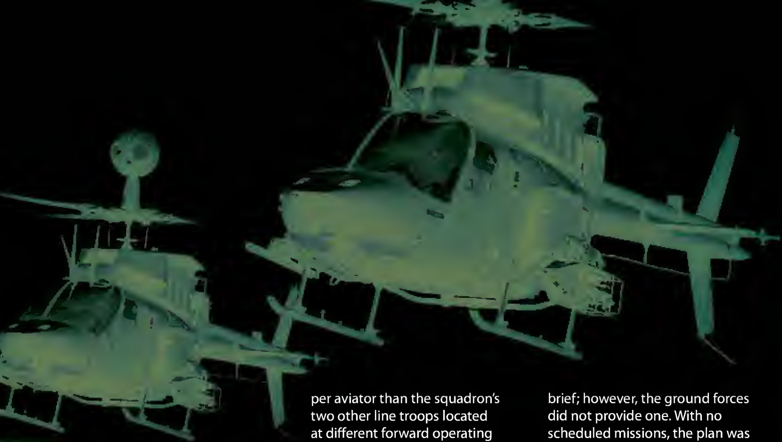
Denali requires that visitors who are planning to hike in the park take a mandatory 90-minute training course on safety around bears and other wildlife that live in the park.

"Hiking and outdoor activities are relatively safe as long as you plan ahead of time and take all the proper precautions," Loder said. "As long as you take the proper equipment, check the weather and use common sense, hiking should be a relatively safe and enjoyable activity." «

Just a ROUTINE MISSION

COMPILED BY THE KNOWLEDGE STAFF

Statistical data show Army aviation units deployed in support of Operation Iraqi Freedom and Operation Enduring Freedom have accidents typically between 90 and 120 days after the unit arrives in the theater of operation. An OH-58D crew recently confirmed this when they struck a tower with the main rotor system, destroying the aircraft and killing both crewmembers. The crew had a little more than 100 days of operating in Iraq. This is what happened and the lessons learned.



The mission was "routine" — one the pilot in command (PC) had flown countless times since the unit's arrival in Iraq. The PC, a high-flight-time, well-experienced aviator with more than 3,200 flying hours, had served in several positions throughout his Army career as an instructor pilot and was recently designated the troop standardization pilot.

The pilot (PI), a new aviator in the Army, completed readiness level (RL) progression at his home station; however, he was unable to complete his night vision goggle (NVG) progression before deploying to theater. Within the first few weeks of arriving in Iraq, the PI integrated into the unit's NVG training program and successfully completed full RL progression. Even so, he was placed on the day cycle, not flying NVGs again until the day before the accident.

The troop had experienced a high flying operational tempo (OPTEMPO) of about 100 to 120 hours per aviator each month. This was 30 hours more flight time per aviator than the squadron's two other line troops located at different forward operating bases (FOBs). Augmenting the unit with additional aviators from the two other troops alleviated OPTEMPO concerns and allowed pilots from other troops to gain combat flying experience.

A rotation of four aviators from the other troops occurred every six weeks. The PI rotated to augment the troop just three days before the accident. This NVG flight was the PI's first flight upon arrival in Iraq. During the flight, he flew in the trail aircraft with another aviator. He was primarily shown the area's road structure which the unit used to navigate. The PC that he flew with said he did not point out towers or potential hazards in the area. This was the first of two scheduled flights the PI was to receive as part of his local area orientation.

The Day of the Accident

The scout weapons team (SWT), consisting of two OH-58Ds, came in two hours before their scheduled mission brief to preflight. After preflight, the SWT went to the tactical operations center (TOC) to receive their mission brief; however, the ground forces did not provide one. With no scheduled missions, the plan was for the PI to fly with the troop standardization pilot in the lead aircraft to finish his orientation.

Both crews went to their aircraft and began run-up procedures. As the aircraft were running up, a messenger from the TOC brought each aircraft a set of mission graphics and a communication card for a convoy security mission. The SWT conducted a hasty mission brief over the radio using the graphics. They quickly conducted an aircraft weapons check, refueled and rearmed before beginning the mission.

The aircraft departed the FOB, flew to the test fire area and then returned to the forward arming refuel point to rearm and refuel. The trail aircraft contacted the ground forces and told them they were ready. The ground forces acknowledged with a mission delay.

The SWT repositioned the aircraft to another area of the FOB and waited 20 minutes until the ground forces were ready. During this 20-minute period, neither crew discussed further details of the mission or ways to mitigate risk.

The SWT departed the FOB for the start point of the mission. The convoy also reached the start point for the planned route of travel. The alleged plan was to fly within the area of operations and provide aerial on-call coverage to the ground forces. The lead aircraft was to fly 300 to 500 feet above ground level (AGL) in front of the convoy about 1,000 meters and then turn around to intercept the convoy before again flying 1,000 meters in front of the convoy. The trail aircraft was to fly 1,000 to 1,200 feet AGL and provide cover for the lead aircraft and the rear of the convoy.

"High bird/low bird" was a typical tactic, technique and procedure for the troop conducting a convoy security mission. As the convoy continued along the route, it became dark to the point NVGs were required. Both crews acknowledged they were using NVGs. While conducting the route reconnaissance, the lead aircraft PC made an extraordinary number of radio calls to the ground convoy commander — so many calls that both the trail aircraft and the ground convoy crews thought it to be excessive.

The lead aircraft flew primarily on the left side of the road while the trail aircraft flew on the right side as they followed the convoy. For the most part, the lead aircraft made left turns to intercept the convoy before flying ahead again.

As the convoy reached the last leg of the route, the lead aircraft flew in front of the procession about 1,000 meters and then made a left turn to intercept the convoy again. Nineteen minutes after the crew announced they were using NVGs, the lead aircraft struck a 370-foot tower with the main rotor system, destroying the aircraft and killing both crewmembers.

What Happened?

The primary cause of the accident was the PC and PI failed to scan and detect the tower before the PC, flying from the right seat, made a left turn to intercept the convoy. Due to the PC's excessive number of radio calls, he was acting more in the capacity of the troop standardization pilot showing the new PI how to perform a convoy security mission. Consequently, little, if any, crew coordination occurred during the flight. This was both the PC's and PI's first deployment. Other pilots noted this PC had

"The **PC** that he **FLEW** with **SAID** he did **NOT** point out **TOWERS** or potential **HAZARDS** in the **AREA.**"

a tendency to become fixated on ground operations during previous missions.

Both the PC and PI were lulled into a false sense of security as a crew. The PC knew the PI was familiar with combat operations in Iraq. After all, the PI had almost 160 hours of combat experience in the 104 days he had been in theater. The PI understood he was flying with the troop standardization pilot, the most experienced pilot in the troop. He was comfortable the PC knew where all the towers and hazards were located. This was a sentiment expressed by the trail aircraft crew during the 20-minute period the crews were on the ground waiting for the mission to start. To them, this was just a routine mission.

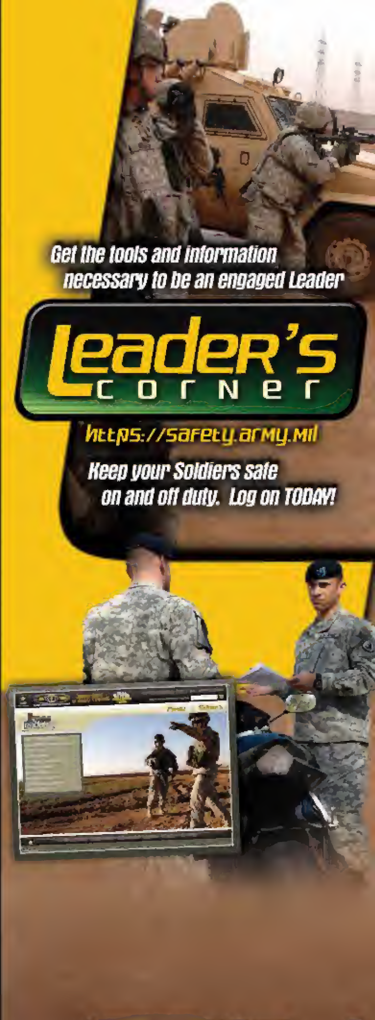
Another flaw in this mission was the SWT failed to plan the mission properly. First, the crew and mission briefer did not interact. The PC had completed the mission brief the day before and dropped it in a box for the briefer to review and sign. The reason being was the troop had flown in the area for 104 days and "every mission was the same."

Other flaws included inaccurate weather data. The mission listed moon illumination to be 93 percent; however, the moonrise did not occur until 1849 — 59 minutes after the accident occurred. Although the city provided ambient light, the SWT actually had zero percent moon illumination at the time of the accident. All in all, it was darker than the crews anticipated.

The SWT also failed to discuss the obstacles and hazards they might face along the route. Discussion of obstacle and hazard avoidance is required during crew briefs as described in Training Circular 1-248, Kiowa Warrior Aircrew Training Manual. The SWT failed to brief team tasks as described in Field Manual 3.04.26, Attack-Reconnaissance Operations.

Additionally, they failed to consider the PI had no previous experience flying in the area, he had not yet flown a day orientation flight, they were combining a mission with an orientation flight and the PI had not flown NVGs since RL progression 58 days before.

There was ample time for the crews to discuss this information during the 20-minute period they were waiting for the start of the mission. All the same, the crews never discussed composite risk management because they had been flying in Iraq for over 100 days and it was just a "routine mission."«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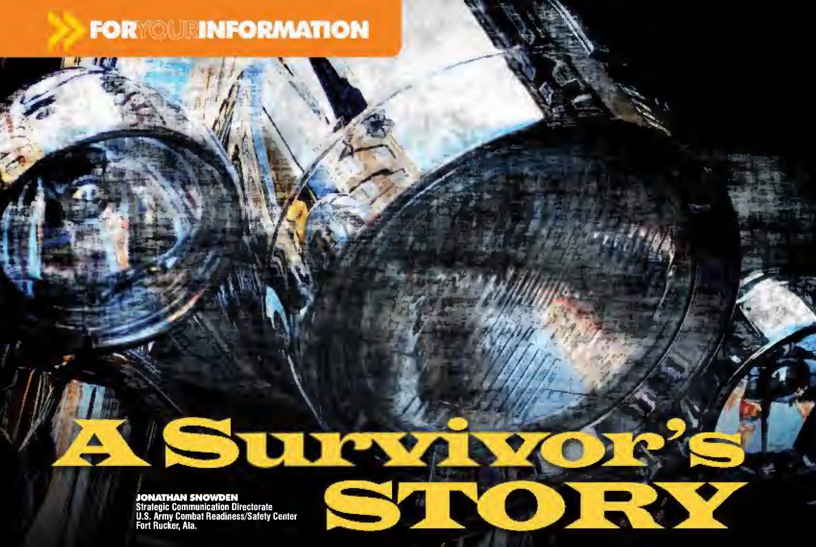

A Survivor's STORY

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U.S. Army Combat Readiness/Safety Center
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Frank Mir was on top of the world. He'd recently beaten the 6-foot-8-inch, 260-pound gargantuan Tim Sylvia for the Ultimate Fighting Championship's (UFC) heavyweight title, making him the top fighter in the world's fastest-growing sport. Cruising on his motorcycle down Sahara Avenue in his hometown of Las Vegas, Mir didn't have a care in the world. Arm resting on the gas tank, Mir was heading to work as a nightclub security specialist and thinking about his upcoming nuptials. He never saw the car coming.

"A person ran a yellow light … and I just happened to be at the wrong place at the wrong time," Mir said. "I got T-boned and thrown quite a distance. Motorcycles don't provide a lot of protection. It could have been a lot worse, though. Thankfully, I had my motorcycle helmet on because we found cement lodged in the back of it afterward."

The helmet Mir wore saved his life that day. He had been hit before. In his line of work, it was an occupational hazard. But the cage fighter had never been hit like this. The oncoming compact car struck him at 50 mph, sending Mir flying more than 70 feet and snapping his femur, the body's largest bone, in half.

"I tore the ligaments in my knee and messed my hips up some," Mir said. "But the femur was the most tragic of the injuries. I lost a way to provide financial security for my family."

Surviving the injury was just the beginning of an arduous comeback trail. Unable to train or fight, Mir was stripped of his heavyweight championship. He had lost more than his job. Just looking in the mirror was hard. Where was the world-class athlete, the warrior, he had worked so hard to become?

"I had enjoyed being an athlete my whole life," Mir said. "Now I'm hobbling around and I lost a lot of my identity. … Obviously, if you choose to be in the military, that's a certain life choice. That's not just a job. Same thing for me as a fighter. It's a lifestyle. It's who I am when I wake up in the morning. Same as someone in the military. You don't just take off your ACUs and say you're a civilian now. You're a military person. That means you come from a certain walk of life and you have certain goals and you're a certain kind of warrior. You don't want that taken away from you."

It took Mir years to get back to where he was at the time of the accident, but he almost didn't make it. When he made his return to fighting, almost a year and a half after the wreck that had nearly taken his life, he was a shell of himself. Out of shape and rusty, he eked out a win over a fighter he would have steamrolled before the injuries.

The California State Athletic Commission had serious questions about his fitness to fight. Even the UFC thought it might be best for the former champion to retire rather than risk his legacy or further injury trying to become what he could never be again — a champion.

"I went from being one of the top martial artists in the world to being a guy who might never be able to fight again," Mir said. "It took me four years to get back to where I was because of one car wreck. There were several times I was in the UFC head office begging not to be cut. I was one decision, one breath, away from never having my career ever again."

In December 2008, after years of hard work and gallons of sweat, the comeback was finally complete. Mir beat interim heavyweight champion Antonio Rodrigo Nogueira to regain his spot as the UFC's top big man. Mir is back on top and fully aware that a motorcycle helmet made it possible for him to have a second chance. And while he won't ride a motorcycle again until he retires from fighting, he knows exactly how he could have prevented the accident. According to Mir, safety on the roadway is up to the rider. The first step is proper training.

"Jumping on a bike for the first time is the equivalent of jumping into the cage with no training," Mir said. "You can do it, but it's more intelligent to have proper training. I had no ego about starting out in a parking lot until I felt comfortable on the open road. I see too many guys who have been riding for a week and they're trying to fly and keep up with me. There's no way, man. There are so many functions that go into controlling a bike. That's what's beautiful about it. To ride a motorcycle well takes a lot of ability and skill."

Like Mir's accident, in most collisions between a motorcycle and a car, the driver of the car is at fault. But Mir says that doesn't mean riders can't do more to ensure their own well-being.

"A lot of times, when people get hurt, it's because they don't fear something," Mir said. "Fear is a very healthy thing. I'm afraid every time I step in the cage. All my losses occurred when I got a certain level of arrogance and wasn't afraid anymore. When I got hit by the car, I was so comfortable on my bike that I literally had my forearm on the gas tank and was just chilling.

"If I had been 'head on a swivel' and been somewhat alert and a little fearful of the situation, I could have easily hit my brakes and avoided the car wreck. Being comfortable in the situation allowed me to be hurt. Make sure you don't lose that healthy sense of fear when you are on the bike. Because that is what keeps you safe."«

MORE ABOUT MIR

For Frank Mir, fighting is a family affair. His first teacher was his father, a Kenpo Karate instructor who taught him how to punch and kick. It wasn't until they saw the first Ultimate Fighting Championship (UFC) that father and son realized that standup striking wasn't enough to be successful against the top competitors in the world.

Mir turned his attention to grappling, winning a high school wrestling title and becoming a black belt in Brazilian Jiu Jitsu. This combination of skills put Mir on the fast track to success. He won seven of his first eight fights before challenging Tim Sylvia for the heavyweight championship. A heavy underdog, Mir used his grappling to snap Sylvia's forearm with an armbar submission when the big man refused to tap the mat in surrender.

After a motorcycle accident, Mir has returned to title contention. He beat pro wrestling superstar Brock Lesnar with a kneebar and defeated the legendary Antonio Rodrigo Nogueira to earn the UFC interim heavyweight championship. Mir is scheduled to face Lesnar again July 11 at UFC 100 for the undisputed heavyweight championship.

Photo courtesy of: Eric Williams/DR Photo Management

GOT A "GLEAM" IN YOUR EYE?

TRI-SERVICE VISION CONSERVATION AND READINESS PROGRAM STAFF
U.S. Army Center for Health Promotion and Preventive Medicine
Aberdeen Proving Ground, Md.

Editor's Note: Excerpts of the following article were originally published in the September 2008 Naval Operational Medical Lessons Learned Newsletter.

There has been an increase of blue force on blue force laser eye incidents reported to in-theater eye clinics and the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM). The rise of incidents appears to be cyclical and corresponds to the arrival of new units into the Multi-National Corps Iraq (MNC-I) theater.

Although the majority of these incidents have not resulted in permanent damage to the eyes or vision of the Soldiers affected, a safety alert on "laser fratricide" was issued from MNC-I Headquarters in July 2007 and All Army Activities (ALARACT) 144/2008, Increase of Laser Eye Incidents, was released in June 2008.

Commanders and Leaders must ensure personnel are thoroughly familiar with laser hazards, control measures and proper employment of these devices. Tab F to Appendix 20 to Annex C of the MNC-I standing operating procedure (SOP), subject: Control Measures and TTP Training for Green Light Laser Systems, contains control measures for the use of lasers for escalation-of-force procedures. All incoming units should be familiar with laser hazards and control measures before issuing laser systems to personnel.

The U.S. armed forces use many different types of laser systems, which vary in power from safe to extremely hazardous. Soldiers and Marines are currently issued Class 3R (formerly 3A) and Class 3B lasers as designators and nonlethal force weapons. These classes of lasers pose significant eye hazards if not used properly. Lasers should be given the same respect as a loaded weapon and handled with equal diligence.

In the U.S. Central Command area of operation, all laser incidents of consequence have been thoroughly evaluated and studied. To date, there has not been one laser eye injury attributable to enemy activity, although that danger still exists. All investigated laser incidents have been the result of self-inflicted accidental exposure or through improper and inappropriate illumination of friendly forces.

Lasers are potentially hazardous

FYI

Medical experts who can evaluate laser eye injuries can be reached through the Tri-Service Hotline. Call toll free 1-800-473-3549; DSN 240-4784; or commercial 210-536-4784. During nonduty hours, call 210-536-3278.

to something of great value — your vision. While the dangers of firearms and explosives are obvious, the risks associated with laser use are less apparent. There is a possibility that a beam of laser light can cause instant, severe and irreversible damage to vision.

Each laser has a nominal ocular hazard distance (NOHD). The NOHD is the distance from the laser exit port to where the exposure falls below the maximum permissible exposure (MPE). The MPE is the level of laser radiation to which an unprotected person may be exposed without adverse biological changes in the eye or skin.

Because the Soldier being "lased" does not often know the type and NOHD of the laser, a "lasing" incident often evokes fear or outrage. Regardless of whether the damage is real, a laser incident will often evoke an unfavorable response.

Laser beams that operate in the visible spectrum (e.g., green or red laser pointer or illuminator) may appear extremely bright, even at power levels that carry a low risk of permanent eye damage. Such an exposure is operationally distracting, however, and may lead the Soldier to suspect injury and seek medical attention. During daylight, an exposure can result in a perceived afterimage (e.g., photoflash effect) that may persist for several minutes. During nighttime operations, the direct viewing of a laser may diminish or impair night vision up to 30 minutes.

The Authorized Protective Eyewear List approves Ballistic-Laser Protective Spectacles, the Special Protective Eyewear Cylindrical System and the sun, wind and dust goggle for laser eye protection. These devices block specific laser wavelengths, while reducing the transmittance of all light through their lenses, in a manner similar to regular sunglasses. Therefore, the use of laser eye protection may encumber some night operations.

Commanders must balance the risk of diminished light transmittance against the risk of laser exposure when deciding on the use of laser eye protection for night operations. However, laser eye protection is not a substitute for proper training, which is the best defense against an eye injury.

Immediately evacuate personnel suspected of experiencing potentially damaging eye exposure from laser radiation to the nearest medical facility for an eye examination. Laser eye injuries require immediate, specialized ophthalmologic care to minimize long-term visual acuity loss. Medical personnel should obtain guidance for the treatment of laser injuries from the Tri-Service Laser Incident Hotline.

Incident and accident reports should be submitted through Department of Defense component channels to the Laser Accident and Incident Registry (U.S. Army Medical Research Detachment, Walter Reed Army Institute of Research). These reports do not replace established safety investigation procedures or other service-specific notification procedures.

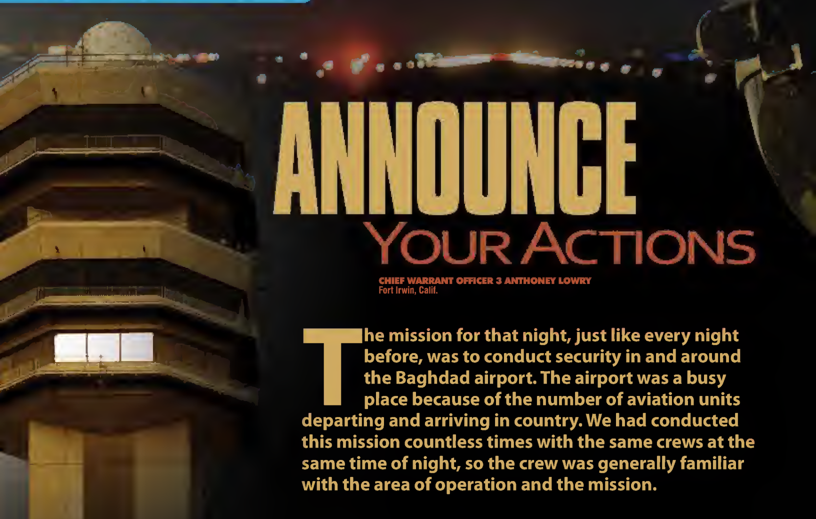
To prevent eye and skin injuries and protect vision, the following controls must be rigorously applied any time lasers are in use:

- Never intentionally point the laser at anyone except an aggressor.
- Never shine the laser at someone's face if they are closer than the laser's NOHD.
- Include laser safety in the unit SOP.
- Include laser safety precautions when briefing rules-of-engagement and escalation-of-force procedures.
- Ensure laser operators are trained on the proper use of their specific laser systems.
- Ensure laser operators can identify the class of laser they have been issued.
- Ensure laser operators know the NOHD of the laser they have been issued.
- Always treat lasers with the same respect and care as you would a loaded weapon.

Laser systems are ubiquitous. They are a part of a Soldier's life on the battlefield and in training. Continued emphasis on training is essential to ensure all Soldiers know how to safely and properly handle lasers. Leaders must ensure Soldiers understand the risks inherent to laser use. Training Soldiers in safe laser operations can reduce the incidence of laser eye injuries and help them safely accomplish their mission.«

DID YOU KNOW?

Lasers used by the U.S. armed forces have been tested by the Army at USACHPPM, the Navy and the Air Force. If you do not know the nominal ocular hazard distance of the laser you are currently using, or if additional information is needed on lasers, training or LEP, please contact USACHPPM's Laser/Optical Radiation Program at (410) 436-3932/3353, DSN 584-3932/3353, or e-mail wesley.marshall@us.army.mil or carolyn.johnson4@us.army.mil.



ANNOUNCE YOUR ACTIONS

CHIEF WARRANT OFFICER 3 ANTHONEY LOWRY
Fort Irwin, Calif.

The mission for that night, just like every night before, was to conduct security in and around the Baghdad airport. The airport was a busy place because of the number of aviation units departing and arriving in country. We had conducted this mission countless times with the same crews at the same time of night, so the crew was generally familiar with the area of operation and the mission.

I was a chief warrant officer 2 instructor pilot with 1,200 total flight hours and pilot in command of the lead aircraft in a two-formation flight. In the left seat was a warrant officer 1 with almost 300 hours of total flight time. Seated in the right seat of the trail aircraft was another chief warrant officer 2 with about the same amount of flight hours I had. In the left seat was the company commander, who had about 900 flight hours.

Our team had been out about 1½ hours and was running low on fuel. We were on the west side of the airport and decided to return for fuel by intercepting the checkpoint on the southwest side, entering the traffic pattern and then landing at the forward arming and refueling point (FARP). It was the standard entry procedure at that time. I monitored the tower frequency as we turned toward the airfield, awaiting the opportunity to contact the tower and let them know we were inbound for the FARP.

It was a busy night. We attempted to contact the tower several times but were interrupted by other aircraft. We were about one kilometer from the CP and had reduced airspeed from 90 knots to about 60 knots, but we could not get through to the tower that we were about to enter their airspace. Due to the massive amount of radio traffic from other aircraft, the tower never heard our calls.

To avoid entering their airspace, we elected to make a 360-degree turn. I told my left-seater that I was going to make a 360-degree turn to the right and then started my turn. What I did not know was the trail aircraft, in a free cruise formation, had lost sight of our aircraft in the lights of the airfield and couldn't see we had reduced our airspeed. The trail aircraft had continued at 90 knots and caught up to our aircraft. Trail ended up on the right side of the lead aircraft at the same altitude and at a distance of about two rotor disks.

A split second before beginning my right-hand turn, I switched radios to tell my wingman I was turning right while simultaneously looking out my right door to make sure I was clear for the turn. As I looked right, I saw another aircraft at our 2:30, passing us and starting a left-hand turn.

My first thought was there's another aircraft I had not heard on the radio. However, then I recognized the pilot in the left seat and knew he was my wingman. I made a hard left turn and said something over the radio to our wingman that I don't remember, but I know it was not in

keeping with proper phraseology. We linked back up with each other and finally landed at the FARP without further incident.

Lessons Learned

Crewmembers are always briefed on crew coordination, specifically "announce actions," before every mission; however, it isn't always briefed from aircraft to aircraft. I made the mistake of not communicating with my wingman that I was reducing airspeed, and our wingman made the mistake of not informing us when they lost sight of the lead aircraft. Had I not looked to the right before starting my turn to clear the aircraft, I have no doubt we would've had a midair collision and killed all four crewmembers that night.

This incident served as a wake-up call. From that night on, when one of our aircraft did something that was either not briefed or out of the norm for the situation, we made sure we announced our actions first to the entire flight and not just the crewmember sitting next to us.«

LET US KNOW WHAT YOU THINK!

U.S. ARMY COMBAT READINESS/SAFETY CENTER

https://safety.army.mil

Your feedback is important to our ongoing mission to constantly improve the products and services offered by the USACR/Safety Center.

HOME Safe HOME

CHIEF WARRANT OFFICER 4 JOSEPH B. REESE
Ground Task Force
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Do-it-yourself projects can be a great way to improve the value of your home. But just because you're working in a place you feel safe doesn't mean there are no hazards. When beginning any home-improvement project, the first tool you use should be composite risk management.

A primary consideration is your skill level as it relates to the task at hand. Do you have the necessary experience and the right tools to do the job? If not, then hire someone who does.

If you know you are up to the task, you'll need to identify potential hazards and risk factors so you can take steps to get the job done safely. For some reason, when people work at home, they tend to think that nothing can happen to them. This is far from true.

According to the Home Safety Council, nearly 21 million people suffer injuries in their home every year. The three most common causes of injuries are falls, poisoning and burns. Given that ladders, power tools and chemicals are common to home repairs, you may want to take a closer look at your safety level in these areas.

How many times have you used a ladder without giving any real thought to your safety? Each year, there are more than 164,000 emergency room-treated injuries in the U.S. relating to ladders. The U.S. Consumer Product Safety Commission (CPSC) offers the following safety precautions to help prevent these injuries:

- Make sure the weight your ladder is supporting does not exceed its maximum load rating (user plus materials). There should only be one person on the ladder at a time.
- Use a ladder that is the proper length for the job. Proper length is a minimum of 3 feet extending over the roofline or working surface. Never stand on the three top rungs of a straight, single or extension ladder.
- All metal ladders should have slip-resistant feet.
- Metal ladders will conduct electricity. Use a wooden or fiberglass ladder in the vicinity of power lines or electrical equipment. Do not let a ladder made from any material contact live electric wires.
- Be sure all locks on extension ladders are properly engaged.
- The ground under the ladder should be level and firm. Large flat wooden boards braced under the ladder can level a ladder on uneven ground or soft ground. A good practice is to have a helper hold the bottom of the ladder.
- Keep your body centered between the rails of the ladder at all times. Do not lean too far to the side while working.
- Do not use a ladder for any purpose other than that for which it was intended.
- Do not step on the top step or bucket shelf or attempt to climb or stand on the rear section of a stepladder.
- Never leave a raised ladder unattended.
- Follow the instruction labels on ladders.

While working on a home-improvement project, power tools help save time and usually make the job easier, making them indispensable to the

> "Being **AWARE** of **HAZARDS** typical to home **IMPROVEMENT** will give you the **EDGE** in **COMPLETING** your project **SAFELY** and **SUCCESSFULLY.**"

do-it-yourselfer. However, negligence, boredom and overconfidence can lead to mishandled tools and serious injury. Keep these guidelines in mind before you plug in the cord:

- **Wear safety glasses.** These prevent dust, debris, wood shavings, shards from fiberglass, etc., from getting into the eyes and are one of the most basic pieces of safety equipment.
- **Protect your ears.** Power tools can generate a lot of noise, which may sound louder in a closed environment. To minimize damage to the ears, it is advisable to wear earplugs.
- **Use the right tools the right way.** Thoroughly read the instruction manuals provided with the equipment and get familiar with the recommended safety precautions. Do not carry tools by their cords and disconnect them when not in use.
- **Dress appropriately.** Long hair should be tied and loose clothing should be avoided. Gloves should be used to prevent injuries from sharp implements and splinters, and masks prevent inhalation of harmful minute particles. Steel-toed work boots and hard hats can also be worn.
- **Inspect your tools.** Check them periodically for exposed wiring, damaged plugs and loose plug pins. Nicked cords can be taped, but should be replaced if the cut appears to be deep. Tools that are damaged or those that sound and feel different when used should be checked and repaired.
- **Keep it clean.** Good housekeeping and an uncluttered work area can go a long way toward reducing accidents.

Hazardous materials are an often-overlooked danger involved in repair and maintenance around the home. Cleansers, bleach, oil, paints, thinners, batteries, medicines, pesticides and many common household items are considered hazardous.

Many of these items, in addition to causing physical injury, are poisonous. These guidelines will help you use hazardous or poisonous products safely:

- Look for "caution," "warning" or "danger" on product labels and always read the directions thoroughly.
- Store products in the original containers and keep labels legible.
- Never transfer dangerous products to glass jars, soda bottles or other containers. Many products look alike. In addition to the risk of the products being mistakenly consumed or otherwise improperly used, the containers may leak or break. It's also easy to forget what product was placed in which container.
- Prevent chemicals from mixing. Some chemicals, such as bleach and ammonia, combine into a deadly gas.
- Use a locking cabinet to store pesticides, automotive fluids, charcoal lighter fluid, paint thinner, antifreeze, turpentine or any chemical substance.

Being aware of hazards typical to home improvement will give you the edge in completing your project safely and successfully. Always take the time to read the instructions on products and tools and do not undertake work beyond your skill level. The time to realize you should've called a professional is not when your spouse is frantically flipping through the Yellow Pages looking for a plumber or carpenter — or, even worse, dialing 911.«

Family
engagement kit
https://safety.army.mil
Army Safe is Army Strong and that starts with a Soldier's Family. Have the information to help you and your Family stay safe.
Be prepared and get your own Family Engagement Kit today!

Good HIT Ch

Our unit conducted a field training exercise during a drill weekend, and I was given an assigned aircraft to fly. On the first day, we conducted a health indicator test (HIT), or HIT check, which resulted exactly in the middle of the range on the HIT card. Crew chiefs sometimes take care of the logbook, if allowed, and "run the numbers" during the HIT check. This means the helicopter is run up, the HIT procedure accomplished and engine indications are compared with the HIT log to verify the engines are working properly.

For the first flight, everything went as planned and we flew the aircraft without any problems. Later that afternoon, we finished flying and performed preventive maintenance daily (PMD). The next morning, we preflighted the aircraft for airworthiness and were ready to go. During the run-up, we conducted the HIT check and I heard from the crew chief, "That was a good HIT check, sir; we're ready to go!"

I didn't verify the numbers, having flown the previous day with the same crew chief and same aircraft. I replied, "Roger," and drove on. We completed our flight home, conducted PMD and readied the aircraft for the next day's mission.

As fate would have it, I was scheduled for the mission the next day. I asked the folks in operations to give me the same aircraft for that mission and they granted my wish. The next morning, we preflighted and were ready to go. Everything was the same except I got a new pilot and crew chief. We were a flight of two for this mission.

During our preflight mission planning, we noticed some early thunderstorms in the area that were slowly making their way to the airfield. As we taxied out for the HIT check and departure, the rainstorms were quickly approaching. We deferred the HIT check until we reached our first destination, an airfield about 45 minutes away. What made my decision was the fact I had flown this aircraft for the past two days and the HIT check was fine both days.

We arrived at our first destination and, before shutdown, did the HIT check. I started with the No. 1 engine, got the numbers and, while waiting for the crew chief to run them, went on to the No. 2 engine.

Imagine my surprise when the crew chief said, "That was a bad HIT check, sir, on the No. 1 engine."

"Are you sure?" I asked.

He said he was sure, so I asked him to read the numbers back to me. We were over on the HIT check by 3 degrees. I decided we would finish the No. 2 engine and then we'd recheck No. 1. We did the HIT check again and it barely passed by 1 degree. To top it off, the next thing I heard from the crew chief was, "It looks like it failed yesterday too."

Now I'm truly in disbelief. I shut down the aircraft and grabbed the logbook to look at the HIT check. Sure enough, the numbers the crew chief wrote down the day before showed the HIT check was over by 2 degrees.

eck, Sir

CHIEF WARRANT OFFICER 4 CHRISTOPHER R. TENARO
Army Aviation Support Facility No. 2
Florida Army National Guard
Brooksville, Fla.

I don't know why he said the numbers were good. What bothered me more was that I deviated from my normal procedure of having the crew chief read back all the numbers to confirm the HIT check. We had a 15-degree difference from the HIT check I did three days ago. Now what? We got the HIT to pass within limits on the second try.

After a brief discussion, we decided to drive on with the mission since it was a short one and shouldn't be a problem. The only problem I had was the anxiety of a 15-degree rise in the HIT check. We completed the mission and returned home. Upon arriving home, I asked the crew chief to write up the HIT check as being within 5 degrees of failing. I then went and had a talk with the maintenance officer and relayed my concerns.

The next morning while going about my daily business, one of the mechanics came to me and said, "You have to come check this out." I followed him to the hangar. There was the answer to the HIT check mystery. The bearing in the inlet particle separator blower had failed, stripping the shaft that goes into the accessory gearbox. This failure manifested itself in the high HIT check.

The moral of the story is to pay attention to the HIT check and verify the numbers. Take a look at the previous checks and look for a trend or a deviation from the trend. One more item of concern: Remember the pilot in command of an aircraft is directly responsible for the operation of the aircraft and the safety of all personnel onboard.«

> "What **BOTHERED** me **MORE** was that I **DEVIATED** from my **NORMAL** procedure of **HAVING** the **CREW CHIEF** read back all the **NUMBERS** to **CONFIRM** the **HIT** check."

Accidents occurred between Mar. 1-31, 2009

AVIATION

HH-60L

CLASS C

During a simulated dust landing, the forward-looking infrared radar and position location system antennas incurred damage when the landing gear broke through a newly surfaced landing area.

UH-60L

CLASS A

The aircraft crashed into trees during a return flight to home station. Crewmembers were able to egress without injuries. The aircraft was destroyed.

CLASS C

During a return flight to home station, a bird struck the aircraft, damaging two main rotor blades and the tail rotor gearbox cover.

OH-58D(R)

CLASS B

The crew heard a "popping" sound in the tail rotor pedal during cruise flight followed by an uncommanded left yaw of the aircraft. During emergency landing, the aircraft initiated an uncommanded right yaw.

CLASS D

Upon completion of refuel/ rearm, the pilot in command lifted the aircraft to a hover slide left and executed a left pedal turn to depart the forward operating base (FOB). During this time, the tail stinger contacted the refuel grounding cable. The crew felt a jerk in the tail rotor. After takeoff from the forward arming and refueling point (FARP), the sister ship checked for visual damage. It was confirmed they had damage, and both aircraft returned to the FOB without further incident. The vertical fin was damaged by the grounding cable, which was not contained in the point box. Late report.

UAS

RQ-7B

CLASS B

- The ground control station lost link with the unmanned aircraft (UA).

- The UA experienced a generator failure during flight. The air vehicle operator was able to maneuver the UA to land in an open field with chute deployment. The UA was damaged.

CLASS C

- The external power cord remained attached as the UA was launched and became intertwined in the engine area and propeller.

GROUND

ACV

CLASS A

- A Solider suffered a permanent total disability injury when he was struck by a round from an M249. The weapon fell from its resting place inside an M1117 Armored Security Vehicle and discharged a round when it struck the ground.

CLASS B

- An M1130 Stryker was damaged when a fire started in the engine compartment during self-recovery following a vehicle malfunction. As the fire spread, it cooked off the onboard .50-caliber ammunition, damaging the vehicle.

CLASS C

- A Mine Resistant Ambush Protected (MRAP) vehicle was damaged when it overturned. The accident occurred when the driver swerved to avoid a local national vehicle that pulled into his path. All personnel received only minor injuries. They were treated onsite by medics and returned to duty.

AMV

CLASS B

- A Soldier's right hand was medically amputated following an injury he suffered when his M1114 up-armored HMMWV overturned during convoy training.

Personnel Injury

CLASS A

- An Army contractor suffered fatal cardiac arrest following an electrical shock. He was attempting to activate a vehicular performance test system and was shocked when he reached into the compartment that housed the transmitters and capacitors.

CLASS B

- A Soldier suffered a permanent partial disability injury when he fell from a second-floor fire escape. The Soldier experienced head trauma and a broken arm.

EXPLOSIVES/FIRE

CLASS A

- Equipment in two laboratories was destroyed in a fire.

- A UH-60A that was being used as a static display during simulated training was damaged in a fire. The fire was caused by a flash-bang pyrotechnic that detonated, ignited the grass and spread to the aircraft.

ARMY AVIATION LOSSES

Fiscal 2009

as of June 7, 2009

	Class A/Fatalities
ATTACK	1/1
RECON	5/4
UTILITY	5/2
CARGO	0/0
TRAINING	0/0
FIXED-WING	0/0
UAS	2/0
TOTAL	13/7

ARMY GROUND LOSSES

Fiscal 2009

as of June 7, 2009

	Class A/Fatalities
AMV	13/12
ACV	11/3
PERSONNEL INJURY includes weapons-handling accidents	16/11
FIRE/ EXPLOSIVE	4/1
PROPERTY DAMAGE	1/0
TOTAL	45/27

DRIVING

POV

CLASS A

A Soldier was test driving a privately owned vehicle (POV) at high speed when he struck a cargo truck from the rear. The Soldier's vehicle then spun 180 degrees into the path of the truck, which struck the car on the driver's side. The Soldier died at the scene.

A Soldier was operating his POV at high speed when he lost control while attempting to negotiate a curve and crashed into a barricade. Local authorities cited alcohol as a factor in this fatal accident. The Soldier was pronounced dead at the scene.

A Soldier was operating his POV at high speed when he lost control, went off the road and overturned. The unbelted Soldier was ejected from his vehicle and suffered fatal injuries.

A Soldier was operating his POV when he failed to negotiate a left-hand turn, left the road and overturned. The Soldier was ejected from the vehicle and suffered fatal injuries.

A Soldier was operating his POV with another Soldier as a passenger when he lost control and struck a wall. The Soldier was evacuated to a medical facility, where he later died. The passenger was treated for minor injuries.

A Soldier with three passengers was attempting to pass another vehicle when he lost control, struck the other vehicle, went off the road and hit a sign pole and a container. The Soldier, who was unbelted, was taken to a medical facility, where he later died. His passengers, who were all belted, survived and were treated for their injuries.

A Soldier with three passengers was speeding when he lost control, went off the road and struck a tree. The Soldier was taken to a medical facility, where he later died. In addition, one of his passengers died at the scene. According to authorities, alcohol was a factor in this accident.

POM

CLASS A

A Soldier was operating his privately owned motorcycle (POM) when he collided with a vehicle at an intersection. Although the Soldier was listed in stable condition, his prognosis was for a permanent total disability due to compound leg and pelvic fractures.

CLASS C

A Soldier was operating his POM when he collided with a POV. The POV overturned, resulting in fatal injuries to the pregnant driver and her unborn child and serious injuries to another child inside the vehicle. The Soldier also lost control, left the road and overturned. The Soldier suffered numerous fractures and injuries.

POV DRIVIN LOSSES

Fiscal 2009

as of June 7, 2009

	Class A/Fatalities
CAR	29/30
SUV/JEEP	10/10
TRUCK	7/7
MOTORCYCLE	20/19
PEDESTRIAN	6/6
OTHER*	2/2

*Includes: vans and ATVs

74

TOTAL DEATHS

Fiscal 2008: 82 3 Year average: 78

BE A RESPONSIBLE RIDER

In fiscal 2008, the Army lost more Soldiers in motorcycle accidents than any other previous year going back to 1986.

Prevent disabling injuries. **Wear your PPE and a helmet that meets DOT standards.**

Hold on to your cash. **Having to rebuild or purchase a new motorcycle means less money in your wallet.**

Arrive at your destination. **Speed and lack of control continue to play major roles in traffic deaths.**

Enjoy the ride. **Ride within your abilities — enjoy this riding season and live to ride for the next one.**

ALSO CHECK OUT:

MMP

MOTORCYCLE MENTORSHIP PROGRAM

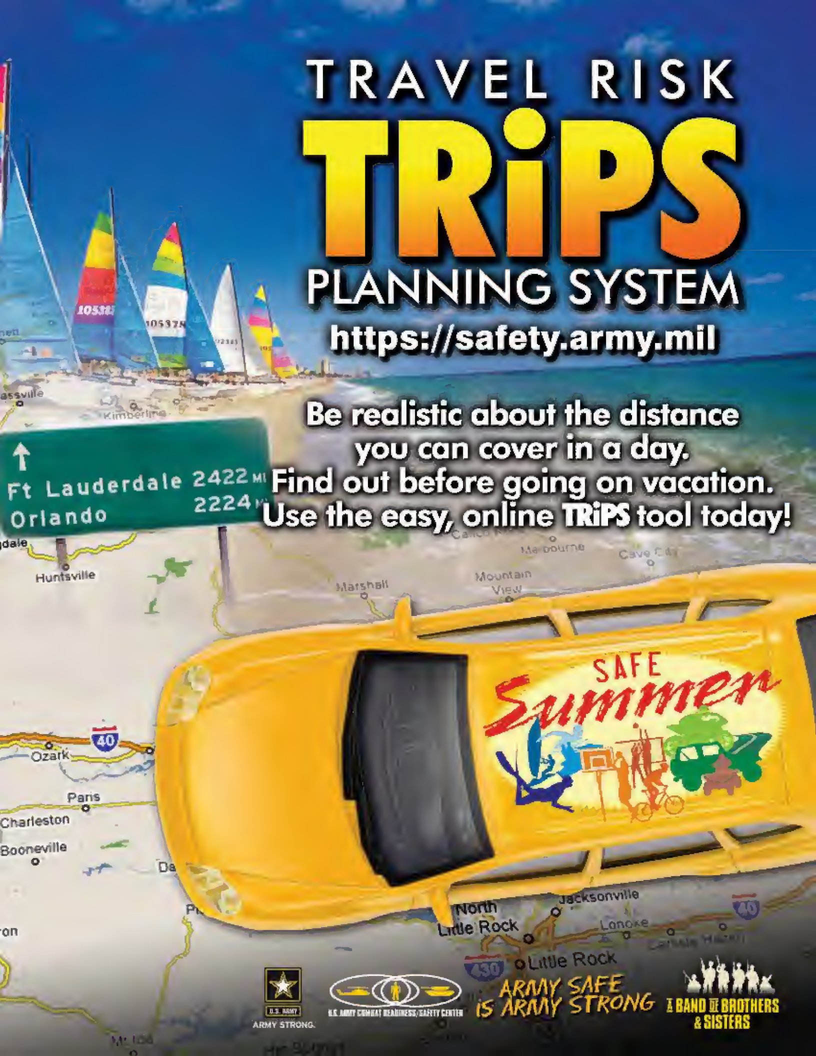
https://safety.army.mil

Pedestrian

CLASS A

■ A Soldier was attempting to cross the traffic lanes of an access road for an interstate highway when he was struck by a vehicle and killed.

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, e-mail safe.knowledge@conus.army.mil.



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